

REMARKS

Reconsideration of the application is requested.

Claims 1-3 and 5-23 are now in the application. Claims 1-3 and 5-23 are subject to examination. Claims 1, 3, 7, 8, 11, and 13 have been amended. Claims 21, 22, and 23 have been added. Claim 4 has been canceled to facilitate prosecution of the instant application.

Under the heading "Claim Rejections – 35 USC § 103" on page 2 of the above-identified Office Action, claims 1-6, 8, 11-15, 18, and 20 have been rejected as being obvious over U.S. Patent No. 4,405,980 to Hess in view of U.S. Patent No. 5,150,471 to Tipon et al. under 35 U.S.C. § 103. Applicant respectfully traverses, in part.

Claims 1 and 11 have been amended to include the limitations of now-cancelled claim 4.

Claim 1 now includes a step of providing the arithmetic computation rule for computing the plurality of addresses in the table memory as an incrementation rule or a decrementation rule.

Claim 11 includes a hardware address computation circuit for, taking the base address as a starting point, applying an arithmetic computation rule to produce a plurality of addresses used by the digital processor to consecutively access

said table memory; said arithmetic computation rule being an incrementation rule or a decrementation rule.

The prior art does not teach or suggest computing the plurality of addresses in the table memory as an incrementation rule or a decrementation rule.

The Examiner has equated the claimed table memory with the main memory AKU taught by Hess. The addresses of the AKU are calculated by an address processor AR. Importantly, Hess merely teaches that the address processor AR processes the addresses read from an address memory ASP (Please see column 2, lines 6-9 and column 6, lines 39-43). Hess does not teach or suggest that the address processor AR performs an incrementation rule or a decrementation rule.

The Examiner has referenced column 2, lines 25-40 of Hess, however, upon a closer inspection of that portion of the teaching, it is seen that the referenced portion of the teaching relates to outputting operation commands from a program memory PS_P to a processor ALU. The referenced portion does not teach calculating the addresses of the main memory AKU. Therefore, applicant respectfully believes it is clear that the cited passage does not support the Examiner's assertions. The invention as defined by claims 1 and 11 are not suggested by the prior art.

Claim 3 has been amended to define a step of prescribing the plurality of base addresses unalterably in hardware, wherein the plurality of base addresses cannot be processed by the digital processor.

Claim 22 has been added to specify that the plurality of base addresses cannot be processed by said processor.

Support for the additions can be found by referring to the specification at page 7, lines 11-14, for example.

The Examiner has alleged that the base address register 32 shown in Fig. 1 of Tipon et al. is hard-wired. Tipon et al., however, teach that a processor 12 loads the base address register 32, and that the loading is performed according to a predetermined computer program (Please see column 3, lines 22-29). It should be clear that Tipon et al. do not teach or suggest the limitations defined by claim 3 or 22.

Claims 7 and 8 have been amended to define a Viterbi decoder hardware arithmetic-logic unit.

Support for the addition can be found by referring to the specification at page 4, lines 22-26.

Neither Hess nor Tipon et al. teach any method steps implementing a Vitebi algorithm. It should therefore be clear that the cited prior art does not teach or suggest a Viterbi decoder hardware arithmetic-logic unit.

Claim 21 has been added to define a hardware counter implementing said arithmetic computation rule as an incrementation rule or a decrementation rule.

Claim 23 has been added to specify that the step of providing the arithmetic computation rule is performed by providing a hardware counter that implements the incrementation rule or the decrementation rule.

Support for added claims 21 and 23 can be found by referring to the specification at page 16, line 14 through page 17, line 8 with reference to Fig. 2, for example.

As discussed above, Hess does not teach or suggest that the address processor AR performs an incrementation rule or a decrementation rule.

Under the heading "Claim Rejections – 35 USC § 103" on page 6 of the above-identified Office Action, claim 7 has been rejected as being obvious over U.S. Patent No. 4,405,980 to Hess in view of U.S. Patent No. 5,150,471 to Tipon et al. and further in view of U.S. Patent No. 3,833,888 to Stafford et al. under 35 U.S.C. § 103.

Even if Stafford et al. does teach the subject matter that the Examiner has alleged and even if it would have been obvious to combine the teachings of the references, the invention as defined by claim 7 would not have been obtained for the reasons specified above with regard to claim 1 and the deficiencies in the teachings of Hess and Tipon et al.

Under the heading "Claim Rejections – 35 USC § 103" on page 7 of the above-identified Office Action, claim 19 has been rejected as being obvious over U.S. Patent No. 4,405,980 to Hess in view of U.S. Patent No. 5,150,471 to Tipon et al. and further in view of U.S. Patent No. 5,311,523 to Serizawa et al. under 35 U.S.C. § 103.

Even if Serizawa et al. does teach the subject matter that the Examiner has alleged and even if it would have been obvious to combine the teachings of the references, the invention as defined by claim 19 would not have been obtained for the reasons specified above with regard to claim 11 and the deficiencies in the teachings of Hess and Tipon et al.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 11. Claims 1 and 11 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1 or 11.

Finally, applicant(s) appreciatively acknowledge(s) the Examiner's statement that claims 9, 10, 16, and 17 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, applicants respectfully believe that rewriting of claims 9, 10, 16, and 17 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1-3 and 5-23 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

A fee in the amount of \$100.00 has been enclosed for presenting two claims in excess of twenty. Please note that claim 4 has been cancelled so there are only 22 claims in the application.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

Appl. No. 10/730,619
Amdt. Dated December 31, 2007
Reply to Office Action of October 10, 2007

Respectfully submitted,

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MPW:cgm

December 31, 2007

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